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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/724,976 | 12/01/2003 | Bill Arndell | WUR 50906/US/2 | 1877 |

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| EXAMINER |
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YAO, SAMCHUAN CUA

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| ART UNIT | PAPER NUMBER |
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1733

DATE MAILED: 09/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/724,976 | Applicant(s) ARNDELL ET AL. | |
| | Examiner Sam Chuan C. Yao | Art Unit 1733 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 18-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>04-09-05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-17, drawn to a process for making a laminated wood composite, classified in class 156, subclass 291.
 - II. Claims 18-20, drawn to a laminated wood product, classified in class 428, subclass 535.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product as claimed can be made by another and materially different process such as coating a surface of a wood veneer by spraying the wood veneer with a polyisocyanate adhesive.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Ms Nicole Graham on 09-21-05 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-17. Affirmation of this election must be made by applicant in replying to this

Office action. Claims 18-20 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-13 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/44803 in view of Cone et al (US 4,115,178), and vice versa.

WO '803, drawn to making a engineered lumber composite using a moisture-curable isocyanate adhesive, substantially discloses the process recited in these claims. Note: the moisture-curable isocyanate adhesive of WO '803 is identical to the adhesive used in the present invention as disclosed in numbered paragraphs 25 and 53 of Applicant's disclosure. WO '803 differs from these claims in that WO '803 does not teach using "*a ribbon coating apparatus*" for applying an adhesive onto a surface of a veneer. However, it would have been obvious in the art to use "*a ribbon coating apparatus*" for applying a foamable moisture-curable

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isocyanate adhesive onto a surface of a veneer in a process taught by WO '803, because: a) Cone et al, drawn to a process of making a plywood from wood veneers, teaches the desirability of applying continuous or discontinuous foamable adhesive ribbons using a ribbon coating apparatus (onto a surface of a veneer (col. 1 line 9 to col. 2 line 68; figures 1-8); and, b) a foamable polyisocyanate adhesive is notoriously well known in the art.

Alternatively, Cone et al substantially discloses the process recited in claim 1.

While Cone teaches using various foamed adhesives such as a phenol-formaldehyde, resorcinol-formaldehyde, etc. and is open to using "*any foamable liquid glue*" (col. 3 lines 1-9), it would have been obvious in the art to use a moisture-curable isocyanate adhesive of WO '803 in the process of Cone et al, because WO '803, drawn to making an engineered lumber from wood veneers, discloses problems with using conventional adhesives such as phenol-formaldehyde (page 1), and suggests using a moisture-curable adhesive comprising a polyisocyanate and "*an isocyanate-reactive component comprising at least one aliphatic tertiary amine group-containing polyol made by alkoxylation or amines or aminoalcohols*" (claims 1-20). As for the dependent claims 2-13 and 16-17, the limitations in these claims are substantially disclosed in WO '803.

8. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references set forth above as applied to claim 6 or 7 above, and further in view of either Robitschek et al (US 4,403,013) or National Evaluation Report (dated 11-2002) on LINESTARTM Adhesives such as LINESTARTM 4800 adhesive.

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While a polyisocyanate adhesive of WO '803 contains a free NCO content of 10-29% (page 5 lines 4-10) and a functionality of at least 2 since it is an NCO terminated prepolymer, WO '803 appears to be silent on the viscosity of the adhesive. However, it would have been obvious in the art to formulate an adhesive such that its viscosity is at least around 1000 cps, because Robitschek et al, drawn to a process of making plywoods, teaches the desirability of formulating a foamable adhesive such that its adhesive is around 1000-20,000 cps (abstract; col. 1 lines 9-50). **Alternatively**, it would have been obvious in the art to use a LINESTAR™ 4800 adhesive in making an engineered lumber from wood veneers, because it is old in the art to use a LINESTAR™ 4800 adhesive, for fabricating LVL composite, as exemplified in a disclosure in National Evaluation Report on LINESTAR™ Adhesives, wherein this adhesive is similar to the one taught by WO '803. Since a LINESTAR™ 4800 adhesive has a viscosity of 3000 cps, it would have been obvious in the art to formulate moisture curable isocyanate adhesive such that it has a viscosity of around 3000 cps.

Conclusion


9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Chuan C. Yao whose telephone number is (571) 272-1224. The examiner can normally be reached on Monday-Friday with second Friday off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sam Chuan C. Yao
Primary Examiner
Art Unit 1733

Scy
09-21-05